

## TITLE

Data Exchange Implementation Project between New York State Departments of Health and Environmental Conservation

## THEME

Build a Sustainable National EPHT Network

## KEYWORDS

information technology, data exchange, web service, ebXML, PHINMS, EPA exchange network

## BACKGROUND

As a result of a pilot study funded by CDC in February 2004, technical specifications and system architecture for the data exchange between NYSDOH and NYSDEC using PHINMS v2.0 (including authentication protocols that meet PHIN standard for security and critical infrastructure protection) have been developed and used to develop a fully automated data exchange system between NYSDEC and NYSDOH.

## OBJECTIVE(S)

- 1) Develop technical specifications and system architecture for the data exchange between NYSDOH and NYSDEC based on interoperability between PHINMS v2.0 and the Exchange Network
- 2) Define a specification for the automated data flow between NYSDEC and NYSDOH
- 3) Build the necessary components required to support the automated flow of ambient air monitoring data from NYSDEC to NYSDOH
- 4) Conduct advanced functional and performance testing
- 5) Provide recommendations to other state and federal environmental and public health agencies regarding the technical implementation of automated data exchanges between environmental and health agencies

## METHOD(S)

- 1) Develop technical specifications based on the technical specifications for the PHINMS and EPA Exchange Network
- 2) Develop Security Policy Specification based on existing NYSDOH Health Commerce and NYSDEC information system infrastructure as well as the EPA Network Authentication and Authorization Service (NAAS), and PHIN standard and specification for security and critical infrastructure protection
- 3) Develop data flow specifications including (a) a common set of data elements to be shared, to be established as an XML schema; (b) a clearly defined set of processes to be established to facilitate the transfer of data, otherwise known as the "flow configuration"; and (c) an agreement between the parties related to the content and quality of the data to be shared and other supporting commitments, otherwise known as a "trading partner agreement"
- 4) Implement flow of ambient air monitoring data using the technical architecture and data flow specifications developed earlier
- 5) Conduct functional and performance testing using different payload content, with special attention to performance issues that may be related to very large transfers
- 6) Deploy the data exchange in production environment

7) Prepare final report on findings as a case study describing not only the technical specifications, system architecture and technical implementation of an automated exchange of data between public health and environmental agencies, but also the policy and infrastructure issues to be considered

## **RESULT(S)**

A Data Exchange System based on the CDC PHIN Messaging System and EPA Exchange Network. It will enable the agencies to share data about environmental hazards, exposures and health effects over space and time. Real-time data flow will enable joint decision support, professional collaboration and rapid dissemination of information to both public health and environmental agencies. Experience from this project will be shared with other state and federal partner agencies, demonstrating the ability of the agencies to exchange data between respective state and national systems and providing feedback and lessons learned for other states that are embarking on similar projects.

## **DISCUSSION/RECOMMENDATION(S)**

NYSDOH and NYSDEC have a longstanding relationship of collaboration that is fundamental to the success of this project. This exchange system will facilitate data sharing and enable data linkage in the EPHT Network.

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